

WHAT IS CLAIMED IS:

1 1. A keyless authorized access control system, the system
2 comprising:
3 at least two object modules, each object module being assigned to a
4 respective object; and
5 at least one identification device, each identification device having a
6 microprocessor and a memory element;
7 wherein each identification device and the object modules have
8 respective bidirectional data communications links between them for communicating
9 encoded data, the data communicated between an identification device and an object
10 module being encoded using an encryption algorithm that performs a symmetric
11 encryption method which uses an encryption parameter respectively assigned to the
12 object module;
13 wherein the memory element of each identification device stores at
14 least two different encryption algorithms, wherein the microprocessor of an
15 identification device selects one of the stored encryption algorithms to be used for
16 encoding the data to be communicated between the identification device and an
17 object module.

1 2. The system of claim 1 wherein:
2 the encryption algorithm to be used for encoding the data to be
3 communicated between the identification device and an object module is assigned
4 by the identification device to the object module during a single initialization process
5 between the identification device and the object module.

1 3. A keyless authorized access control system, the system
2 comprising:
3 at least two object modules, each object module being assigned to a
4 respective object, one of the object modules having a memory element; and
5 at least one identification device, wherein each identification device
6 and the object modules have respective bidirectional data communications links
7 between them for communicating encoded data, the data communicated between an

8 identification device and an object module being encoded using an encryption
9 algorithm performs a symmetric encryption method which uses an encryption
10 parameter respectively assigned to the object module;

11 wherein the memory element of the one object module stores at least
12 two different encryption algorithms, wherein the microprocessor of the one object
13 module selects one of the stored encryption algorithms to be used by an
14 identification device for encoding the data communicated by the identification device
15 and an object module.

1 4. The system of claim 3 wherein:

2 the encryption algorithm to be used by the identification device for
3 encoding the data communicated by the identification device and an object module
4 is assigned by the one object module to the identification device during a single
5 initialization process between the identification device and the one object module.

1 5. An identification device for a keyless authorized access control
2 system having at least two object modules, each object module being assigned to a
3 respective object, wherein the identification device and the object modules have
4 respective bidirectional data communications links between them for communicating
5 encoded data, the data communicated between the identification device and an object
6 module being encoded using an encryption algorithm that is used to perform a
7 symmetric encryption method which uses an encryption parameter respectively
8 assigned to the object module, the identification device comprising:

9 a microprocessor and a memory element, wherein the memory
10 element stores at least two different encryption algorithms, wherein the
11 microprocessor selects one of the stored encryption algorithms to be used for
12 encoding the data to be communicated with an object module.

1 6. The identification device of claim 5 wherein:

2 the encryption algorithms stored in the memory element are
3 configurable and replaceable through a programming interface.

1 7. The identification device of claim 5 wherein:

2 the memory element is integrated in the microprocessor.

1 8. An object module for a keyless authorized access control system
2 having an identification device and at least one other object module, each object
3 module being assigned to a respective object, wherein the identification device and
4 the object modules have respective bidirectional data communications links between
5 them for communicating encoded data, the data communicated between the
6 identification device and an object module being encoded using an encryption
7 algorithm that is used to perform a symmetric encryption method which uses an
8 encryption parameter respectively assigned to the object module, the object module
9 comprising:
10 a microprocessor and a memory element, wherein the memory
11 element stores at least two different encryption algorithms, wherein the
12 microprocessor selects one of the stored encryption algorithms to be used by the
13 identification device for encoding the data communicated by the identification device
14 and one of the object modules.

1 9. The object module of claim 8 wherein:
2 the encryption algorithms stored in the memory element are
3 configurable and replaceable through a programming interface.